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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,700	04/05/2001	Peter Fuhrmann	DE 000060	4195

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EXAMINER

PHILPOTT, JUSTIN M

ART UNIT PAPER NUMBER

2665

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/826,700	FUHRMANN ET AL.	
	Examiner	Art Unit	
	Justin M Philpott	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20030825, 20010405</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because Figures 1-6 comprise boxes without identifying labels. Applicant is requested to label each of the boxes in Figures 1-6 with appropriate designations such as “decision circuit”, “pilot signal generator”, etc.
2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 1, 2, 4 and 6-9 are objected to because of the following informalities:

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Regarding claim 1, applicant is suggested to clarify the phrasing “and in that with a” (claim 6, line 3), and “and in that also in the” (claim 1, line 9; and claim 9, line 7).

Regarding claim 2, the language “a pilot signal generator which generates either a pilot signal that indicates the whole assigned time slot, or the beginning and end of the time slot” is unclear. That is, the language refers to a pilot signal generator which generates “a pilot signal ...” or which generates “the beginning and end of the time slot”. It would appear that applicant may have intended, rather, to recite “a pilot signal generator which generates a pilot signal that either indicates the whole assigned time slot, or indicates the beginning and end of a time slot”.

Regarding claim 4, the claim is objected to because the language in lines 5-8 is unclear. Applicant is suggested to amend the claim to recite “the first switching element in the event of receiving an active send control signal is placed in the active state and the second switching element is placed in the non-active state”, or other language which clarifies the claim. Further, “the activated state” (lines 3 and 4), “the active state” (lines 6-7), and “the non-active state” (line 7) should be changed to “an activated state”, “an active state” and “a non-active state”, respectively, since previous recitation of such states has not been provided.

Regarding claims 6-8, it is not clear whether the recitation of “a decision circuit” (claim 6, line 2; claim 7, line 2; claim 8, line 1) are decision circuits in addition to the “decision circuit” introduced in claim 5 (line 2) upon which claims 6-8 depend, or if these recitations are intended to refer to the same decision circuit. If the latter is true, applicant should amend claims 6-8 to refer to “the decision circuit” instead of “a decision circuit”. Appropriate correction is required.

Regarding claim 7, “having each” (line 2) should be changed to “each having”.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,428,046 to Chari et al.

Regarding claim 1, Chari teaches a network (e.g., system 10, see FIG. 1) comprising a plurality of network nodes (e.g., subsystems 12 No.0-N), characterized in that at least part of the network nodes (e.g., subsystems 12 No.0-N) are directly coupled to each other via at least one star node (e.g., star coupler 14, see FIG. 1), in that the star node (e.g., star coupler 14) includes a plurality of star interfaces (e.g., interfaces 26, see FIG. 3) which are assigned to at least one network node (e.g., subsystem 12 No.0-N, see col. 4, lines 49-57), in that one star interface (e.g., interface 26) transfers data from the assigned network node (e.g., subsystem 12) to the other star interfaces (e.g., interfaces 26) or from another star interface (e.g., interface 26) to at least one of the assigned network nodes (e.g., subsystem 12) (e.g., see col. 4, line 53 – col. 5, line 11) each time in dependence on a pilot signal (e.g., flag bits), and in that also in the event of simultaneous arrival of at least two pilot signals at the respective star interfaces, a decision circuit (e.g., within contention circuitry 42) releases one star interface for the transmission of data (e.g., see col. 5, lines 3-19).

Regarding claim 2, Chari teaches in that to each network node (e.g., subsystems 12 No.0-N) in the network (e.g., system 10) a certain periodically repetitive time slot is assigned for the transmission of data (e.g., transmission is in accordance with periodically repetitive clock cycles, see col. 4, lines 22-37; see also clock signaling in col. 10, lines 25-53), and in that a network node (e.g., subsystem 12 No.0-N) includes a pilot signal generator (e.g., inherently comprised within subsystems 12, see col. 4, lines 32-37 regarding the generating of flag bits) which generates either a pilot signal (e.g., flag bits) that indicates the whole assigned time slot, or the beginning and end of the time slot (e.g., see col. 3, line 68 – col. 4, line 21 regarding beginning and ending flag bits which establish the beginning and ending of each message).

Regarding claim 3, Chari teaches a pilot signal evaluation circuit (e.g., within contention circuitry 42) is provided for generating a send control signal (e.g., SELECT signal), in that the pilot signal evaluation circuit (e.g., within contention circuitry 42) is provided for activating the send control signal (e.g., SELECT signal) if a pilot signal (e.g., flag bit) has been sent by the assigned network node (e.g., subsystem 12) and no other star interface (e.g., interface 26) having a higher priority has simultaneously sent a pilot signal (e.g., flag bit) from the network node (e.g., subsystem 12) assigned to this other star interface (e.g., interface 26) (e.g., see col. 5, lines 3-53 regarding contention circuitry 42 providing respective SELECT0-SELECTN signals in accordance with priority), and in that a star interface (e.g., star coupler 14) is provided for transferring data from the assigned network node (e.g., subsystem 12) to the other star interfaces (e.g., interface 26) only when the send control signal (e.g., SELECT) is activated (e.g., see col. 5, lines 3-53).

Regarding claim 4, Chari teaches in that each star interface (e.g., interface 26) includes a first and second switching element (e.g., first and second of a plurality of tri-state devices 36, see FIG. 3), in that the first switching element (e.g., tri-state device 36 receiving SELECT0 signal) in the activated state passes data from the assigned network node (e.g., subsystem 12) to the other star interfaces (e.g., interfaces 26) and the second switching element (e.g., tri-state device 36 receiving SELECTN signal) in the activated state passes data from the other star interfaces to the assigned network node (e.g., subsystem 12), and in that the first switching element e.g., tri-state device 36 receiving SELECT0 signal) in the event of an active send control signal (e.g., upon receiving SELECT0 signal) is in the active state and the second switching element in the non-active state (e.g., see col. 5, lines 20-53; and col. 9, lines 50-68).

Regarding claim 9, Chari teaches a star node (e.g., star coupler 14) for coupling a plurality of network nodes (e.g., subsystems 12 No.0-N), characterized in that a star node includes a plurality of star interfaces (e.g., interfaces 26) which are assigned to at least one network node (e.g., subsystem 12 No.0-N, see col. 4, lines 49-57) and which, in dependence on a pilot signal (e.g., flag bits), transfer a message from the assigned network node (e.g., one of subsystems 12 No.0-N) to the other star interfaces, or from another star interface to at least one of the assigned network nodes (e.g., one of subsystems 12 No.0-N) (e.g., see col. 4, line 53 – col. 5, line 11), and in that also in the event of simultaneous arrival of at least two pilot signals (e.g., flag bits), a decision circuit (e.g., within contention circuitry 42) releases one star interface for the transmission of data (e.g., see col. 5, lines 3-19).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chari.

Regarding claim 5, Chari teaches the network discussed above regarding claim 4, however, may not specifically disclose the switching elements are switchable amplifiers. However, Examiner takes official notice that it is well known in the art for switching elements to comprise switchable amplifiers. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to utilize switchable amplifiers for the switching elements of Chari since it is well known in the art for switching elements to comprise switchable amplifiers.

Regarding claim 6, Chari teaches a decision circuit (e.g., within contention circuitry 42) evaluates the send control signals (e.g., SELECT0-N signals) of all the star interfaces (e.g., interfaces 26), and in that with a simultaneous occurrence of various send control signals (e.g., SELECT0-N signals), the decision releases via a decision control signal (e.g., COUPLER SELECT signal) a certain star interface for the transmission of data (e.g., see col. 5, lines 3-53 and col. 9, line 17 – col. 12, line 18).

Allowable Subject Matter

8. Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: claim 7 recites a network including all of the limitations recited in claims 1-6, with the additional limitations of a decision circuit including a chain of in-line decision elements each having an OR gate, wherein each gate combines the output signal of the previous decision element with a local send request signal generated by the pilot signal evaluation circuit and indicating the presence of the pilot signal, and wherein the output signal of an OR gate is the decision control signal for the star interface assigned to the next decision element in the chain. A network comprising each of these limitations was not found in a search of related prior art.

Claim 8 is dependant upon claim 7 and therefore comprises allowable subject matter for the same reasons discussed above regarding claim 7.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Nos. 4,982,400 to Ebersole and 4,839,885 to Wu disclose star LAN configurations, and U.S. Patent Nos. 4,700,344 to Kaino et al. and 4,417,334 to Gunderson et al. disclose star coupler configurations.

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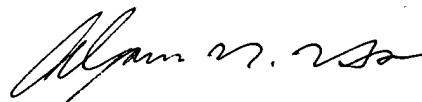
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on 571.272.3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Justin M Philpott



ALPUS H. HSU
PRIMARY EXAMINER